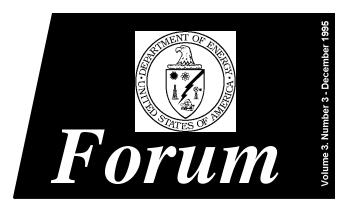
### The

# Standards



News on the DOE Technical Standards Program

### Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights

Adapted from the Executive Summary of a "white paper" report released by Secretary of Commerce Ronald H. Brown, Chairman of the White House Information Infrastructure Task Force (IITF), and Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks. The entire document may be accessed on the World Wide Web at:

http://iitf.doc.gov or at
http://www.uspto.gov

A U.S. Commerce Department report (white paper) on intellectual property and the national information infrastructure was released on September 1, 1995. The Report, written by the IITF Working Group on Intellectual Property Rights, explains how intellectual property law applies in Cyberspace and makes legislative recommendations to Congress on how to fine-tune the law for the digital age. In releasing the report, Brown, who is also chairman of the White House Task Force on the National Information Infrastructure (NII), said, "The Commerce Department's mission is to make our economy grow, to promote science and technology, and to increase our international trade.... This Report will help ensure that the NII has as favorable an environment as possible in which to develop an electronic marketplace for commerce .... Unless we provide legal protection for intellectual property on the NII,

customers won't be able to reap the benefits of these new technologies." Lehman, who is chairman of the Working Group on Intellectual Property, the writers of the report, added, "Without enforceable laws in place, intellectual property owners will be unwilling to put their works at risk in this rapidly expanding digital environment. The Working Group has examined existing copyright law and is recommending changes that will allow owners and users of all types of materials, from movies to software, to realize the full potential of the information superhighway as a commercial marketplace."

The Report includes recommendations to Congress regarding some limited, but important, changes to the copyright law, including clarification of the copyright owner's distribution right and amendment of library privileges.

The following potential improvements and enhancements are proposed:

- a greater amount and variety of information and entertainment resources, delivered quickly and economically from and to virtually anywhere in the world in the blink of an eye;
- access to rich cultural resources around the world, transforming and expanding the scope and reach of the arts and humanities and broadening our cultural experiences through diversity of content;
- support for our education and library systems;
- enhanced competitiveness for U.S. business and the promotion of job creation, economic growth, and wellbeing for Americans;

(Continued on Page 4)

### IISP Implements WWW Home Page and Identifies 40 Required Standards

Adapted from November 2, 1995, press release by the American National Standards Institute (ANSI).

At a meeting held October 31 - November 1, 1995, in Milwaukee, Wisconsin, the Information Infrastructure Standards Panel (IISP), announced its new Internet home page on the World Wide Web (WWW). The Internet site contains general information about IISP and the most current information available on the activities of the working groups. The Web Page can be accessed at

http://www.ansi.org/iisp/iisphome.html

The IISP was established in 1994 to ensure that standards are identified and developed for products and services applicable to the National and International Infrastructures.

The IISP represents more than 80

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The November Department of Energy (DOE) Technical Standards Managers' Committee meeting brought out again the need for all Technical Standards Managers to participate in these meetings and in the Technical Standards Program. Most of the key issues discussed, and the decisions and recommenda-

tions made in relation to them, were developed through a team effort after intense discussions. We were fortunate to have a fairly large turnout at the meeting in spite of the budget woes, so we probably effectively represented most views and ideas in our community of headquarters, field offices, laboratories, and management and operating contractors. The Technical Standards Managers at the meeting made significant changes in the direction of the program. These changes include asserting the need for requirements to govern the program, developing a screen-

ing process defining (through a guide) how we can best do our jobs, recognizing (and quantifying) the value of program activities, and introducing radical changes in the ways we will communicate with one another (for instance, developing an electronic forum on Internet) and our customers (for instance, posting draft technical standards coupled to an electronic data base and comment resolution process). If you are one of the Technical Standards Managers who came to the meeting prepared and ready to discuss the issues, keep up the good work. If you are a first-timer, then you recognize the importance of being prepared for the meetings and being familiar with the program procedures. It you are a Technical Standards Manager in name only, then start participating or have someone designated in your place who will participate. We will soon be opening an electronic forum to help generate discussion on issues and deal with problems in close-to-real time. We will also be working harder to promote the DOE value-added approach through program activities. I hope these efforts will encourage broader participation. See you on the Web.

Rick Serbu

### TSP Strategic Plan

Major elements of the current version of the strategic plan for the Department of Energy (DOE) Technical Standards Program (TSP) are provided below. They give an overview of the program as it relates to Department activities. The strategic plan is a "living" document, and comments and suggestions are welcome. A detailed version of the plan that includes strategies being employed to ensure mission success and how performance can be measured (success indicators) is available on request. Comments, questions, and requests should be directed to Rick Serbu (EH-31), TSP Manager, 301-903-2856; FAX 301-903-1182; or Email: richard.serbu@hq.doe.gov

#### **DOE Technical Standards Program Strategic Plan**

### **Vision**

By the year 2000, the culture of the DOE community will be based on standards. Technical standards will be formally integrated into all DOE facility, program and project activities. The DOE will be recognized as an active participant in the use and development of technical standards. The Technical Standards Program will be a benchmark for efficiency, value and support for the DOE customer.

#### **Mission**

In support of the Department's Standards Program and in partnership with all stakeholders, the TSP will aid DOE's transition to a standards based culture by providing information, coordinating activities, and promoting the use of national and international (i.e., non-Government) consensus standards, and, when needed, the TSP will develop and maintain DOE technical standards.

#### Goal 1

Promote a culture that routinely integrates technical standards into the performance of work.

#### Goal 2

Establish the Technical Standards Program as the key resource throughout the Department for providing information on technical standards, coordinating and integrating technical standards activities, developing technical standards when needed, and assisting in identifying appropriate technical standards.

#### Goal 3

Foster closer ties between DOE and the broader standards community and enhance transfer of knowledge and technical innovation by encouraging DOE participation in non-Government standards development, including developing technical standards for DOE.

#### Goal 4

Ensure that technical standards reflect the needs of the users.

#### Goal 5

Ensure that the activities of the Technical Standards
Program promote enhancements to safety and the protection of the environment and add value to the mission of the Department.

### **Technical Standards Manager Spotlight**

Mitchell P. Kunich Standards Manager, DOE Nevada Operations Office

Mitch Kunich is a member of both the Department of Energy (DOE) Technical Standards Managers' Committee and the Department Standards Committee. He has been responsible for the Nevada Operations Office (DOE/NV) Technical Standards program since July 1988. In addition, he provides management support in areas of project planning and operations, program management, quality improvement, and performance assessment. Mitch holds a B. S. degree in Industrial Technology, Construction, from California State College, Long Beach.

Mitch's government career began as an Engineering Intern with the Atomic Energy Commission in Nevada. For over 27 years, he has served in program and project management and quality assurance positions for both the weapons and the commercial high-level nuclear waste management programs in Nevada. Over the years, his assignments have taken him far from his professional roots in Nevada to places like Amchitka, Alaska, and other remote sites. Mitch has worked on plant construction, test construction, and operations at the Nevada Test Site (NTS) and other remote sites. He was the Project Engineer on a large geologic storage demonstration (spent nuclear fuel assemblies stored in the Climax Stock granite at the NTS). He has worked

on the commercial high-level waste program for 12 years and served as Deputy Project Manager for six years on the Nevada Nuclear Waste Storage Investigations Project (the forerunner to the current Yucca Mountain geologic repository program). He also served for four years as the Director of the Quality Assurance Division, implementing NQA-1, the national consensus standard for quality assurance, for the weapons program.

Mitch likes to talk, usually with strong convictions, about standards, safety, quality, and the "KISS" principle. Discussions soon hit on his four (plus) basic quality principles, which have their roots in performance standards: (1) establish standards, (2) appraise performance, (3) take action when necessary, and (4) plan for improvements; plus, always give it a second try to simplify.

"Today in the Department, everyone is talking about the 'Necessary and Sufficient (N&S) Closure Process' that is being developed by the Department Standards Committee," Mitch told *The Standards Forum*. He believes the N&S process is consistent with his own tried-and-true common sense quality principles.

Mitch describes the N&S process as a planning process used to define the work and analyze the risks and hazards, identify the standards that will form the basis of work performance, make a commitment to meet that set of standards, and define the

implementing plans and procedures, using those standards set for the performance of the work. Mitch emphatically adds, "THEN DO IT... own it, document it, measure it, improve it, demonstrate it, and take pride in it."



"Standards fit well into the N&S process and the Pillars of Economic Wisdom," a brief newspaper article I read long ago," Mitch said. Referring to this article, Mitch shared the following excerpt for our readers: "In economics, all productivity is based on natural resources, which are changed by expenditure of human energy both muscular and mental, with the aid of tools. Tools are the only one of these three factors that man can increase without

limit. Tools come into being in a free society only when there is a reward for people who channel part of their earnings away from purchases that produce immediate comfort and into new tools of production (investment). Proper payment for the use of tools —

fees, rent, profit, interest — is essential to their creation. An organization must earn and retain enough profit to pay for tools, or it will be unable to compete. Productivity of tools — that is, efficiency of the human energy applied to their use — has always been highest in a competitive society in which economic decisions are made by millions of progress-seeking individuals.

Mitch Kunich

"Standards are valuable

tools. They are the essence

engineers and scientists are

of economic wisdom, and

lost without them."

rather than a society in which those decisions are made by a handful of all-powerful, no matter how well meaning, people."1

Mitch then made the following application: "Non-Government standards and DOE standards are likewise valuable tools that are worth the investment. Standards bring about economic, safety, and quality rewards. Standards are the language of the engineer and scientist and capture their wisdom for society. Without standards, the benefits are lost — no measurement, no data, no equation, no fit, no solution, no explanation. The DOE standards program budget is that necessary part of the Department budget retained for the care and creation of those tools, enabling us to operate in a more economical, creditable, and professional manner."

<sup>1</sup> Taken from an article that was adapted from the American Economic Foundation and turned yellow on Mitch's office door.

(Intellectual Property ... Continued from Page 1)

- new job opportunities in the creation, processing, organizing, packaging and dissemination of information, education, and entertainment products;
- technology, trade, and business opportunities for new products, and new markets for U.S. industries; and
- a wider variety and greater number of choices for consumers of books, movies, music, computer programs, and other copyrighted works; increased competition and reduced prices.

The Working Group examined the adequacy of the intellectual property laws to cope with the pace of technological change. It found that the patent, trademark, and trade secret laws need no adaptation at this time. It also found that the Copyright Act is fundamentally adequate and effective. In a few areas, however, it recommended limited amendments of the Copyright Act to take proper account of current technology. Technology has altered the copyright balance — in some instances, in favor of copyright owners and in others, in favor of users. The goal of the recommendations is to clarify existing law and adapt it where the balance has shifted.

The Report recommends that Section 106(3) of the Copyright Act be clarified to expressly recognize that copies or phonorecords of works can be distributed to the public by transmission, and that such transmissions fall within the exclusive distribution right of the copyright owner. The Report also recommends related amendments to the definitions of "transmit" and "publication," as well as distribu-

tion-related provisions regarding importation of copies or phonorecords. Other recommendations address library exemptions, provisions for the visually impaired, changes in the copyright law to protect against deactivation of technological protections, and the protection of copyright management information.

The Report "generally supports" certain amendments to the copyright law and the criminal law that tie offenses to retail value. Still other recommendations and findings encourage public input to the activities of the Patent and Trademark Office (PTO) protection process, and encourages the PTO to look into establishing requirements or standards governing authentication of electronically disseminated information.

The Report supported, among other recommendations, further study in the area of special institutional licenses for schools and libraries.

The Working Group will continue to work with the Conference on Fair Use, composed of about 60 copyright owner and user interest groups, with the goal of developing guidelines for uses of copyrighted works by librarians and educators. In addition, the Copyright Awareness Campaign, cosponsored by the Departments of Education and Commerce, strives to increase public awareness of the importance of intellectual property in the information age.

#### (IISP Implements WWW Home Page ... Continued from Page 1)

standards developing organizations, corporations, industry associations, consortia, and government agencies. IISP members address standards issues such as security, copyright protection, and network interconnection.

The meeting addressed the Government's commitment to continued reliance on standards developed by the private sector. The cooperative relationship between industry and Government was underscored by keynote speaker Michael Hogan of the Computer Systems Lab, National Institute of Standards and Technology (NIST). "Government sees industry continuing to lead in the development of standards for information technology. We will continue to cooperate with industry in selecting standards for its use," Hogan said.

Workshop session topics included:

- review of the more than 40 new IISP standards needs;
- development of standards needs for electronic publishing, medical records, education and entertainment, electronic commerce, human factors, and the intelligent highway system; and
- industry convergence and the role IISP can play in facilitating cross-industry standards.

"IISP is an excellent example of the effectiveness of the private sector-led standards process enjoying strong government cooperation and involvement," said Oliver Smoot, IISP Chairman and Executive Vice President of the Information Technology Industry Council (ITI). "IISP has grown from 60 participants to more than 80 actively participating organizations since its inception in 1994; the group comprises a broad spectrum of participants from the private and public sectors and from all industries, with more than 25 standards organizations working to determine where existing standards meet requirements and where additional standards development efforts are required."

IISP's next meeting will be January 17-18, 1996, in Washington, D.C. In addition, IISP will participate in the International Workshop on the Global Information Infrastructure in Geneva, Switzerland, January 24-26, 1996.

Additional information on IISP can be obtained by contacting R.M. "Chick" Hayden, ANSI director of information infrastructure programs, at 212-642-4920 or via Email (chayden@ansi.org) or Peter B. Lefkin, ANSI program administrator of information infrastructure programs, at 212-642-4979 or via Email (plefkin@ansi.org).

### DOE Office of Industrial Technology Fosters Standards Development

Article contributed by Michael G. Jenkins

Development of national and international standards for continuous fibre ceramic matrix composites (CFCCs) are being encouraged by the Office of Industrial Technology through the CFCC Program under the direction of Merrill Smith. Task 2, "Supporting Technologies," of the CFCC program is charged with the development of the basic

understanding, characterization techniques, and test methods for the industrial participants in Task 3, "Materials and Process Development." Standards development under SubTask 2.3, "Test Methods," has fostered cooperative efforts between government (ORNL), academe (University of Washington), and industry (e.g., Allied Signal, Babcock and Wilcox, Dupont-Lanxide) through the efforts of CFCC participants on ASTM Committee C28, "Advanced Ceramics."



CFCCs are the focus of Subcommittee C28.07, "Ceramic Matrix Composites," which is chaired and vice-chaired by Michael Jenkins (University of Washington) and Egar Lara-Curzio (Oak Ridge National Laboratory), respectively. Leadership and vision of the researchers combined with the experience and needs of the industrial participants have led to prioritization and development of eight standards or draft standards to date. Furthermore, efforts have been initiated to introduce a new work item on CFCCs in ISO Technical Committee TC-206 "Fine Ceramics." Finally, cooperative work with the Committee for European Normalization (CEN) is resulting in the participation of CEN members in American Society for Testing and Materials (ASTM) and International Organization for Standardization (ISO) efforts.

In addition to work with ASTM, two CFCC participants, Jenkins and T.V. Narayanan, are members of a recently formed work group on impervious graphite and ceramic composites within Section VIII of the ASME Boiler and Pressure Code. While ASTM standards formalize methods for characterizing CFCC, the ASME Code will 'legitimize' the materials by providing the rules for designing CFCCs with and using them in advanced, energy-efficient designs.

The following standards for CFCCs are available from ASTM:

- C1275, Standard Test Method for Monotonic Tensile Strength Testing of Continuous Fibre-Reinforced Advanced Ceramics with Solid Rectangular Cross Section Specimens at Ambient Temperatures.
- C1292, Standard Test Method for Shear Strength of Continuous Fibre-Reinforced Advanced Ceramics at Ambient Temperature

The following standards are in advanced stages of balloting within ASTM:

- Standard Test Method for Monotonic Tensile Strength Testing of Continuous Fibre-Reinforced Advanced Ceramics with Solid Rectangular Cross Section Specimens at Elevated Temperatures.
- Standard Test Method for Flexural Properties of Continuous Fibre Ceramic Composites.
- Standard Test Method for Monotonic Compressive
  - Strength Testing of Continuous Fibre-Reinforced Advanced Ceramics with Solid Rectangular Cross Section Specimens at Ambient Temperatures.
  - Standard Practice for Constant-Amplitude, Axial, Tension-Tension Cyclic Fatigue of Continuous Fiber-Reinforced Advanced Ceramics at Ambient Temperatures.
  - Standard Test Method for Creep and Creep/Rupture of Continuous Fiber-Reinforced

Advanced Ceramics.

 Standard Test Method for Tensile Strength and Young's Modulus for High Modulus Single-Filament Materials.

For more information, contact Michael G. Jenkins, 206-685-7061; FAX 206-685-8047, Email: jenkinsm@u.washington.edu

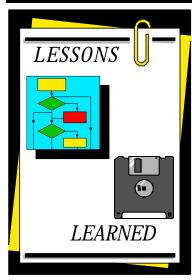
### **ASTM Committee E36 on Laboratory Accreditation**

(Reported in the TMO Update, August 25, 1995)

The American Society for Testing and Materials (ASTM) is applying to the American National Standards Institute, Inc. (ANSI) for the right to substitute the ASTM complete consensus process for ANSI's own balloting process (the "selfdesignation" process) for ASTM standards destined to become American National Standards. ASTM Committee E36 is to submit its standards for American National Standards designation. Balloting began for Standard Practice for the Investigation and Resolution of Complaints Involving Laboratories and Accrediting Bodies, including the adoption of 57 terms with international document-related definitions. Subcommittee E36.50, chaired by Underwriters Laboratories' David Haataja, provided identification lists of ASTM and other national and international standards developing committees concerned with laboratory accreditation in order to offer E36 information and assistance.

For more information, contact Steve Mawn, 610-832-9726, or Diane Rehiel, 610-832-9723, ASTM.

(News Briefs Continued on page 6)



### Coordination of DOE Handbooks

Department of Energy (DOE) Technical Standards Managers (TSMs) and Preparing Activities who currently hold copies of the Technical Standards Program Procedures (TSPPs) will soon receive a revision to TSPP-6, Coordination of DOE Technical Standards. The revision to TSPP-6, approved by the TSMs at the November 1995

meeting of the Technical Standards Managers' Committee, will require that all DOE Handbooks (HDBKs) be coordinated the same as DOE Standards (STDs). The change is effective immediately and applies to all HDBK projects in process [i.e., those that have not been printed by the Office of Scientific and Technical Information (OSTI) and electronically posted on the OSTI World Wide Web server].

This change in the coordination of new DOE handbooks or proposed revisions to existing handbooks is being effected to strengthen the consensus building process within the Department for its technical standards. The change also addressed weaknesses in the coordination process that have resulted in some handbook projects being released with either format or terminology inconsistencies or statements that could be construed to be requirements (i.e., "shall" statements). Because DOE handbooks are supposed to contain general information of an informative nature, there should not be any "limited" handbooks.

All DOE handbook projects are to be coordinated with the Technical Standards Program Office and designated TSMs. If you have any questions about this change in the coordination process, please contact Rick Serbu, TSP Manager, EH-31, 301-903-2856, Email: richard.serbu@hq.doe.gov

### Selection of Postscript Printers for Electronic Files of DOE Technical Standards

Now that all documents for the Technical Standards Program are being placed on the Internet, we have learned a valuable lesson that influences the process of developing electronic file copies of the documents for submittal to the Technical Standards Program Office (TSPO) and, subsequently, converting the files so that the documents may be viewed and downloaded from the Internet.

In the past, the conversion of electronic file copies of Department of Energy (DOE) technical standards into files that could be posted on the Internet for on-line review or local printing has been time consuming for our support personnel in the Office of Scientific and Technical Information (OSTI). The problem appeared to stem from the variety of local systems (i.e., software packages and default printers) used to create the documents. Recently, the TSPO, using OSTI's recommendation, selected the Adobe™ Acrobat™ software to convert the electronic files of DOE technical standards for posting on the Internet. What we have found out since we have been using the Acrobat ™ software is that it does not matter which word processing software (WordPerfect™ preferred) or desktop publishing software (PageMaker™ preferred) the Preparing Activities use; what does matter is the default printer selected when the Preparing Activities download the final document to a disk file for transmittal to the TSPO. If that download is accomplished using a "Postscript to File" default printer, OSTI does not experience any changes in the document when they begin the conversion to Acrobat ™. In effect, the electronic copy of the DOE technical standard can be immediately posted on the Internet when OSTI receives it.

Therefore, in the future, we request that all Preparing Activities ensure they have an appropriate Postscript ™ printer driver installed on the system used to create the electronic copy of the approved document and that the Postscript™ printer is selected as the default printer just prior to downloading the file to a disk. By doing so, OSTI will save considerable time and cost in the process of converting the document for Internet access. Assistance from the Preparing Activities in this matter would be greatly appreciated. If you have any questions, please contact Ray Parrott, OSTI, 423-576-3277.

News Briefs (Continued from page 5)

### Codes and Standards Issues Related to Advanced Nuclear Power Reactors

The Technical Standards Program Office recently reviewed a copy of NUREG/CR-6358, "Assessment of United States Industry Structural Codes and Standards for Application to Advanced Nuclear Power Reactors." The report, prepared for the Nuclear Regulatory Commission (NRC), documents an evaluation performed of U.S. industrial structural standards for application to a number of advanced light water reactor and advanced reactor designs. The results of the evaluation formed the basis for over 70 recommended changes to industry consensus standards and the proposed development of new industry standards for use in constructing the advanced power plant designs. In addition, the report includes information on the response of structures and distribution systems to the recent earthquakes in Northridge, California, and Kobe, Japan. Copies of the report may be obtained from the NRC Public Documents Room, the U.S. Government Printing Office, or the National Technical Information Service.



# Standards Actions

### **DOE Technical Standards Recently Sent for Coordination**

During the coordination process, the appropriate Technical Standards Managers will provide selected reviewers with copies for comment. If you wish to comment on a particular

document, please notify your Technical Standards Manager. Department of Energy (DOE) documents currently in coordination are given below.

- DP/DOE High Efficiency Particulate Air (HEPA) Filter Testing Program, Project Number 4460-0001, (James W. Slawski, DP-311, 301-903-5464); comments due December 15, 1995, but late comments will be considered.
- In-place Testing of High Efficiency Particulate Air (HEPA) Filters, Project Number 4460-0003, (James W. Slawski, DP-311, 301-903-5464); comments due December 15, 1995, but late comments will be considered.
- Specifications for HEPA Filters used at DOE Facilities, Project Number 4460-0005, (James W. Slawski, DP-311, 301-903-5464); comments due December 15, 1995, but late comments will be considered.
- Criteria for Calculating the Efficiency of HEPA Filters During and After Design Basis Accidents, Project Number 4460-0006, (James W. Slawski, DP-311, 301-903-5464); comments due December 15, 1995, but late comments will be considered.

### **Documents Recently Published**

The Technical Standards Program is sponsoring a project at the Office of Scientific and Technical Information (OSTI) to place all DOE technical standards (i.e., standards and handbooks) on the Internet by the end of December 1995. To date, 57 of the 67 currently approved DOE technical standards have been placed on the Internet at the following address:

http://apollo.osti.gov/html/techstds/techstds.html

The following DOE technical standards have recently been placed on the Internet:

- DOE HDBK-1078-94, Training Program Handbook: A Systematic Approach to Training, August 1994.
- DOE-HDBK-7502-95, Implementing U.S. Department of Energy Lessons Learned

Programs - Volume 1, August

### **Technical Standards Program**

### Document Status as of 11/30/95

In	In	Out for	Published in Past 30 Days
Conversion	Preparation	Comment	
27	47	20	0

Total in process = 67

### Non-Government **Standards**

### American National Standards Institute

The American National Standards Institute (ANSI) publishes coordination activities of non-Government standards (NGS) biweekly in ANSI Standards Action. Please note that distribution

of ANSI Standards Action is normally made only to individual members of ANSI or in group mailings to site members of ANSI. For information on site membership. ask your local ANSI contact. For information on individual or group ANSI membership, call Bethany Marks at 212-642-4948. For further information on distribution policies of ANSI publications, call the ANSI distribution manager at 212-642-4952.

Copies of ANSI Standards Action and ANSI-published documents may be obtained from ANSI, 11 West 42nd Street, New York, NY 10036 (212-642-4900, FAX 212-302-1286). Comments on listed draft standards may be submitted by contacting the standards developing organization for information.

The following listings are extracted from ANSI Standards Action and are representative of NGS development activities that may be relevant to DOE operations. Refer to ANSI Standards Action for a complete listing of changes and new publications, standards-developing organizations, and additional information about submitting comments.

Standards Actions (Continued from page 7)

### The following American National Standards are currently in coordination:

- ANS 8.17, Criticality Safety Criteria for the Handling, Storage and Transportation of LWR Fuel Outside Reactors (reaffirmation of ANSI/ANS 8.17-1984); comments due January 9, 1996.
- ASME B30.23, Personnel Lifting Standard (new standard); comments due January 9, 1996.
- IEEE 665-1995, Guide for Generating Station Grounding (new standard); comments due January 9, 1996.
- IEEE 802.10g, Secure Data Exchange (SDE) Security Label (new standard); comments due December 26, 1995.
- UL 1275, Standard for Safety for Flammable Liquid Storage Cabinets (new standard); comments due January 9, 1996.
- UL 1994, Standard for Safety for Low Level Path Marking and Lighting Systems (new standard); comments due December 26, 1995.

### The following newly published American National Standards are available from ANSI:

- ANSI N42.20-1195, Performance Criteria for Active Personnel Radiation Monitors.
- ANSI S1.26-1995, Method for the Calculation of the Absorption of Sound by the Atmosphere.
- ANSI S3.20-1995, Bioacoustical Terminology.
- ANSI/ASHRAE 110-1995, Method of Testing Performance of Laboratory Fume Hoods.
- ANSI/ASME B1.13M-1995, Metric Screw Threads M Profile.
- ANSI/ASME B30.5a-1995, Mobile and Locomotive Cranes.
- ANSI/ASME B30.18a-1995, Stacker Cranes.
- ANSI/ASME B30.7a-1995, Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings, addenda to ANSI/ASME B30.7-1994.

### <u>The following international standards are currently in coordination</u> (comment due dates follow each entry):

- 23A/253/FDIS, Draft IEC 1084-2-1, Cable trunking and ducting systems for electrical installations - Part 2: Particular requirements - Section 1: Cable trunking and ducting systems intended for mounting on walls or ceilings - December 1, 1995.
- 23F/69/FDIS, Draft IEC 1545, Group Safety Publication: Connecting devices - Devices for the connection of aluminium conductors in clamping units of any material and copper conductors in aluminium bodied clamping units - November 15, 1995.

- 45A/206/FDIS, Draft IEC 1500, Nuclear power plants -Instrumentation and control systems important to safety functional requirements for multiplexed data transmission - December 15, 1995.
- 45A/207/FDIS, Draft IEC 1343, Nuclear reactor instrumentation Boiling light water reactors (BWR) Measurements in the reactor vessel for monitoring adequate cooling within the core December 15, 1995.
- 50B/363/FDIS, IEC 68-2-52, Environmental testing Part
   2: Test methods Test Kb: Salt mist, cyclic (sodium, chloride solution) November 15, 1995.
- 88/53/FDIS, IEC 1400-2, Wind turbine generator systems
   Part 2: Safety of small wind turbines December 1, 1995.
- ISO/DIS 11625, Gas cylinders Safe handling February 12, 1996.
- ISO/DIS 12803, Requirements for representative sampling of plutonium nitrate solutions for determination of plutonium concentration - February 12, 1996.
- ISO/DIS 13275, Natural gas Preparation of calibration gas mixtures - Gravimetric methods - February 12, 1996.
- prEN 54-1 REVIEW, Fire detection and fire alarm systems
   Part 1: Introduction (for information).
- prEN 303-5, Heating boilers Part 5: heating boilers for solid fuels, hand and automatically fired, with a nominal heat output of up to 300 kW - Terminology, requirements, testing and marking - February 8, 1996.
- prEN 932-2, Tests for general properties of aggregates -Part 2: Methods for reducing laboratory samples - February 8, 1996.
- prEN 1948-1, Stationary source emissions Determination of the mass concentration of PCDDs/PCDFs- Part 1: Sampling February 13, 1996.
- prEN ISO 9241-4, Ergonomic requirements for office work with visual display terminals (VDTs) - Part 4: Keyboard requirements (ISO 9241-4: 1995) - November 20, 1995.
- prEN 12149, Wallcoverings in roll form Determination of certain heavy metals contents, vinyl chloride monomer, formaldehyde - February 21, 1996.
- prEN ISO 14001, Environmental management systems -Specification with guidance for use (ISO/DIS 14001: 1995)
   - January 10, 1996.
- prEN ISO 14010, Guidelines for environmental auditing -General principles (ISO/DIS 14010:1995) - January 10, 1996.
- prEN ISO 14011, Guidelines for environmental auditing -Audit procedures - Auditing of environmental management systems (ISO/DIS 14011:1995) - January 10, 1996.

(Continued on page 9)

Standards Actions (Continued from page 8)

- prEN ISO 14012, Guidelines for environmental auditing -Qualification criteria for environmental auditors (ISO/DIS 14012: 1995) - January 10, 1996.
- prEN 50130-5, Alarm systems Part 5: Environmental test methods January 26, 1996.
- prEN 60068-2-68, Environmental testing Part 2: Tests Test L: Dust and sand (for information).

### The following newly published international standards are available from ANSI:

- IEC 904-7: 1995, Photovoltaic devices Part 7: Computation of spectral mismatch error introduced in the testing of a photovoltaic device.
- IEC 904-9: 1995, Photovoltaic devices Part 9: Solar simulator performance requirements.
- IEC 909-3: 1995, Short-circuit current calculation in threephase a.c. systems - Part 3: Currents during two separate simultaneous single phase line-to-earth short circuits and partial short-circuit currents flowing through earth.
- IEC 999-2: 1995, Connecting devices Safety requirements for screw-type and screwless-type clamping units for electrical copper conductors Part 2: Particular requirements for conductors from 35 mm<sup>2</sup> up to 300 mm<sup>2</sup>.
- IEC 1000-2-5: 1995, Electromagnetic compatibility (EMC)
   Part 2: Environment Section 5: Classification of electromagnetic environments - Basic EMC publication.
- IEC 1268: 1995, Alternating current static var-hour meters for reactive energy (classes 2 and 3).
- IEC 1452: 1995. Nuclear instrumentation Measurement of gamma-ray emission rates of radionuclides Calibration and use of germanium spectrometers.
- ISO 9455:1995, Soft soldering fluxed Test methods Part 6: Determination and detection of halide (excluding fluoride) content.
- ISO 10005:1995, Quality management Guidelines for quality plans.
- ISO 11113:1995, Cylinders for liquefied gasses (excluding acetylene and LPG) Inspection at time of filling.
- ISO 11372:1995, Cylinders for dissolved acetylene -Inspection at time of filling.

#### **American Society for Testing and Materials**

Standards activities of the American Society for Testing and Materials (ASTM) are published monthly in *ASTM Standardization News*. Orders for subscriptions or single copies of ASTM *Standardization News* may be submitted to ASTM, Subscription Dept.-SN, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959. For information regarding ASTM membership, contact the Membership Services Department at 610-832-9692.

ASTM publications may be ordered from the ASTM Customer Services Department at 610-832-9585 (FAX 610-832-9555). Comments on listed draft standards may be submitted by contacting the ASTM Standards Coordination Department at the above address. Questions may be addressed to the Technical Committee Operations Division at 610-832-9743 (FAX 610-832-9666). The following listings are extracted from *ASTM Standardization News* and are representative of NGS development activities that may be relevant to DOE operations.

### The following ASTM standards are currently in coordination (the due date for all items is December 10, 1995):

- New Standard, Test Method for Effect of Movement on Sealants During Cure (Ref. Z5073Z).
- New Standard, Guide for Use of Casing Advancement Drilling, Methods for Geoenvironmental Exploration and the Installation of Subsurface Water-Quality Monitoring Devices (Ref. Z2748Z).
- New Standard, Test Method for Determination of Rock Hardness by the Rebound Hammer Method (Ref. Z2966Z).
- New Standard, Practice for Minimum Set of Data Elements to Identify a Soil Sampling Site (Ref. Z4664Z).
- New Standard, Guide for Use of Cable-Tool Drilling and Sampling, Methods for Geoenvironmental Exploration and the Installation of Subsurface Water-Quality Monitoring Devices (Ref. Z5171Z).
- New Standard, Practice for Writing Quality Control, Specifications for Standard, Test Methods for Water Analysis (Ref. Z2949Z).
- New Standard, Test Method for Filterable and Non-Filterable Matter in Water (Ref. Z5450Z).
- New Standard, Test Method for the Deterioration of Geotextiles from Outdoor Exposure (Ref. Z2704Z).
- New Standard, Test Method for Measurement of Index Flux Through Saturated Geosynthetic Clay Liner Specimens Using Flexible Wall Permeameter (Ref. Z5455Z).
- New Standard, Practice for Controlling Quality of Radiological Examination by Using Representative Quality Indicators (RQIs) (Ref. Z4870Z).
- New Standard, Practice for Fabrication of Neutron Radiographic Beam Purity Indicators (Ref. Z5669Z0).

### The following newly published standards are available from ASTM:

- A 940/A 940M-95, Specification for Vacuum Treated Steel Forgings, Alloy, Differentially Heat Treated, for Turbine Rotors (new standard).
- C 833-95, Specification for Sintered (Uranium-Plutonium ) Dioxide Pellets (revised standard).

(Continued on page 10)

Standards Actions (Continued from page 9)

- C 1291-95, Test Method for Elevated Temperature Tensile Creep Strain, Creep Strain Rate and Creep Time-to-Failure for Advanced Monolithic Ceramics (new standard).
- C 1292-95, Test Method for Shear Strength of Continuous Fiber-Reinforced Advanced Ceramics at Ambient Temperatures (new standard).
- C 1298-95, Guide for the Design and Construction of Brick Liners for Industrial Chimneys (new standard).
- D 5640-95, Guide for Selection of Weirs and Flumes for Open Channel Flow Measurement of Water (new standard).
- D 5726-95, Specification for Themoplastic Fibers Used in Hot-Applied Roofing and Waterproofing (new standard).
- D 5745-95, Guide for Developing and Implementing Short-Term Measures or Early Actions for Site Remediation (new standard).
- D 5746-95, Classification of Environmental Condition of Property Area Types (new standard).
- D 5759-95, Guide for Characterization of Coal Fly Ash and Clean Coal Combustion Fly Ash for Potential Use (new standard).
- E 1678-95, Test Method for Measuring Smoke Toxicity for Use in Fire Hazard Analyses (new standard).
- E 1704-95, Guide for Specifying Acoustical Performance of Sound-Isolating Enclosures (new standard).
- E 1716-95, Guide for Selection and Use of Personal Protective Equipment for Working with Respirable Silicon Carbide Whiskers (new standard).
- PS 29-95, Test Method for Unit Weight, Yield, and Air Content (Gravimetric) of Controlled Low Strength Material (new standard).

### American National Standards Projects Initiated

The following is a list of proposed new American National Standards or revisions to existing American National Standards submitted to ANSI by accredited standards developers. DOE employees or contractors interested in participating in these activities should contact the appropriate standards developing organization. DOE-TSL-4 lists the DOE representatives on NGS committees. If no DOE representative is listed, contact the TSPO for information on participating in NGS activities.

### **American Society of Mechanical Engineers**

Office: 345 East 47th Street, M/S 10C New York, NY 10017 Contact: Richard McGinnis

 ASME PC-1, Guidelines for the Development of Inspection Programs for Pressure Equipment (new standard).

#### **American Welding Society**

Office: 550 N.W. LeJeune Road Miami, FL 33126 Contact: Charles R. Fassinger

- AWS C1.1, Recommended Practices for Resistance Welding (new standard).
- AWS G1.3, Specification for Hot Gas Welder Certification (new standard).

#### Institute of Electrical and Electronics Engineers

**Office:** 445 Hoes Lane, P.O. Box 1331 Piscataway, NJ 08855-1331

Contact: Luigi Napoli

- IEEE C57.12.34, Standard Requirements for Three Phase Pad-Mounted Distribution Transformers (new standard).
- IEEE C57.133, Guide for Short-Circuit Testing of Distribution and Power Transformers (new standard).

#### **National Fire Protection Association**

Office: 1 Batterymarch Park Quincy, MA 02269-9101

Contact: Arthur E. Cote

- NFPA 501, Manufactured Dwelling Code (new standard).
- NFPA 721, Standard on Fuel Gas Warning Equipment (new standard).
- NFPA 273, Determining Degrees of Combustibility of Building Materials (new standard).

#### Underwriters Laboratories. Inc.

Office: 12 Laboratory Drive

Research Triangle Park, NC 27709

Contact: Michael Hieb

- UL 14B, Standard for Safety for Sliding Hardware for Standard, Horizontally Mounted Tin-Clad Fire Doors (new standard).
- UL 14C, Standard for Safety for Swinging Hardware for Standard Tin-Clad Fire Doors Mounted Singly and in Pairs (new standard).

Contact: Betty Allen

 UL 1803, Standard for Safety for Factory Follow-up on Third Party Certified Portable Fire Extinguishers (new standard).

### **Comments or Questions**

If you have any questions or comments, please contact Rick Serbu (EH-31), Manager, DOE Technical Standards Program Office (TSPO), 301-903-2856. Questions or comments may also be referred to Don Spellman, 423-574-7891, c/o Performance Assurance Project Office, Oak Ridge National Laboratory, P.O. Box 2009, Oak Ridge, Tennessee 37831-8065. The TSPO would like to be kept informed of the status of technical standards that are being prepared or coordinated for DOE. Please provide this information to the TSPO at 423-574-0396.

### **TSMC Meeting Highlights**

Meeting 95-3 of the Technical Standards Managers' Committee (TSMC) was held in St. Louis, Missouri, on November 7-8, 1995. Forty-one individuals attended, including Technical Standards Managers (TSMs) and program staff from Headquarters, operations and field offices, laboratory and management and operating (M&O) contractors, and information systems program staff from the Office of Scientific and Technical Information (OSTI). The meeting was highly interactive, with wide participation from the attendees. The meeting focused on improving services, measuring Technical Standards Program (TSP) performance and customer satisfaction, improving TSM performance and communications, and developing a set of program requirements that would maintain the program baseline and resource commitments for line organizations.

The issues discussed included:

- Status of policy and orders development, including HR Policy and Order 251.1, and activities of the TSMC Policy Working Group.
- Funding (or lack thereof) for printing and distribution of Department of Energy (DOE) documents.
- The need for revised TSP procedures to improve screening of technical standards for need and applicability, similar to those in the New Directives System (NDS).
- How the TSP relates to and supports the Department Standards Committee (DSC) and the "necessary and sufficient" (N&S) standards process.
- Improving electronic communications with TSMs, Preparing Activities, commentators, and reviewers.
- Enhancing job performance and knowledge for TSMs.
- Interactions with non-Government standards bodies (NGSBs), e.g., the American National Standards Institute (ANSI) and Federal standards organizations, e.g., the Interagency Committee on Standards Policy (ICSP).
- Current activities focused on promoting the use of voluntary standards (e.g., HR's Information Architecture), developing technical standards through NGSBs, and converting DOE technical standards to national and international standards.
- Providing TSP briefings to managers and users across the DOE.
- Canceling or updating the existing RDT/NE standards.

Breakout sessions were conducted and recommendations developed as follows:

 Revising the process for screening proposed technical standards - A new process for screening technical standards for need and applicability was developed similar to that in the NDS. Following screening for need and for existing voluntary standards by the Preparing Activity, each proposed technical standard would also be subjected to review for need by a TSMC screening group, which could reject proposed technical standards projects. This would be conducted through a review similar to that used by the Directives Management Board, and could be appealed through a DSC Focus Group. Control would be exercised through acceptance or rejection, authorization of funding, TSMC participation in the review process, and the addition of caveats for unapproved technical standards. The TSPO will develop revised procedures for screening, based on TSMC input, and update related protocols. These will be submitted to the TSMC for review prior to the next meeting.

- 2. Next steps in assessing/developing the perception of value for DOE technical standards and the TSP TSMs discussed the value of the TSP to its customers, the value of DOE technical standards to their users, and the measurement of these values. Recently completed user survey results were factored into the sessions along with cost estimates developed in past TSMC meetings. Value assessments will be built into the TSP strategic plan, program plan, and action plans.
- 3. How to improve communications between and among TSMs, between the TSPO and the TSMs, between the TSP and users/user management, and among other DOE programs (i.e., NDS) As a result of this session, the TSPO will make available to TSMs the variety of briefing materials used by the TSPO to brief management and users. An electronic forum will be established on the OSTI World Wide Web (WWW) server for issue discussion and information dissemination via the Internet. Links to other programs (e.g., home pages for DOE, EH, DSC, and NGSBs) will be established. More focused briefings, consistent with reduced resources, will be conducted by the TSPO and TSMs.
- 4. What TSMs can do to improve local acceptance The links between the TSP and the N&S process will be publicized, and the service/assistance role of the TSP will be emphasized. The TSP will provide input to the N&S training effort on the value of the TSP for supporting the N&S process. TSMs will participate in N&S training sessions. The TSMC will continue to develop and refine the TSM guide, and the guide will be posted on the OSTI WWW server. In order to ensure support for TSMs, a DOE Order (to be developed by a TSMC Working Group) requiring a TSP and TSMs must be revised or established; otherwise, it is unlikely that TSMs from laboratory and M&O contractors will be assigned or permitted to actively participate in the TSP.

The next meeting of the TSMC is planned for April 1996 in concert with the 1996 TSP Workshop in St. Louis. All TSMs are encouraged to attend both the meeting and workshop. Your views on how the TSP can better support the needs of your site or organization are important and can be best addressed through your active participation in these events.

### **Upcoming Meetings**

January 9-11, 1996

### The Changing World of Standards - EPIC VI

Hyatt Regency Hotel, Baltimore, Maryland

This Equal Partner Implementation Conference will combine government and industry interests for a forum on standards issues

that have a major impact on the way that government and industry do business.

This conference will look at standards reform efforts in various federal agencies, provide an update on the National Standards System Network, discuss recent developments in laboratory accreditation and conformity assessment, and address changes in the international standards arena, including the impact of the new ISO 14000 series of environmental standards.

For more information, contact the National Fire Protection Association, Meetings Department, 1 Batterymarch Park, P.O. Box 9101, Quincy, Maryland 02269-9101, ATT: EPIC Conference, 617-984-7310, FAX 617-984-7030.

### January 17-18, 1996

#### Information Infrastructure Standards Panel Meeting

Key Bridge Marriott, Arlington, VA

For more information, contact Peter B. Lefkin, ANSI program administrator for information infrastructure programs, at 212-642-4979; Email: plefkin@ansi.org.

#### April 10-12, 1996

### The DOE Technical Standards Program 1996 WORKSHOP

Adam's Mark Hotel, St. Louis, Missouri

Theme: The Strategic Standardization Initiative - A Technology Exchange and Global Competitiveness Challenge for DOE

The theme for this workshop is "The Strategic Standardization Initiative - A Technology Exchange and Global Competitiveness Challenge for DOE." The workshop goal is to inform the DOE technical standards community of strategic standardization activities taking place in the Department, other Government agencies, standards development organizations, and industry. We will challenge individuals working on technical standards to participate in improving cooperation and communication with the involved organizations in response to the initiative.



Workshop sessions will include presentations by representatives from various Government agencies in several areas: the coordination among and participation of Government personnel in the voluntary standards process; reports by standards organizations, industry, and DOE representatives on current technol-

ogy exchange programs; and how the road ahead appears for "information superhighway" standardization. There will also be a session showcasing successful standardization case studies selected from several sites across the DOE complex. The workshop will climax with a panel discussion of the goals and objectives of the DOE Technical Standards Program as envisioned by senior DOE management.

The hotel is in downtown St. Louis directly across from the Gateway Arch, the waterfront shops, and the various riverboat attractions along the Mississippi River. Please contact Lori Lane at 423-574-7886, for further details or registration information.

## The Standards

Forum

### **Published By**

Oak Ridge National Laboratory (ORNL) publishes *The Standards Forum* quarterly for the DOE Technical Standards Program. Questions or comments may be referred to Rick Serbu, EH-31, 301-903-2856; Email:

richard.serbu@hq.doe.gov. If you have any comments on *The Standards Forum* or on DOE standards projects, please call Don Spellman, ORNL, 423-574-7891; Email: spellmandj@ornl.gov.

If you would like to have your name added to (or removed from) the mailing list for this publication or need to make an address change, please notify Marty Marchbanks, ORNL, 423-241-3658; FAX: 423-574-0382; Email: marchbanksmf@ornl.gov.

### DOE Technical Standards Managers (TSMs) - Recent Changes

Note: A complete, updated listing of DOE TSMs will be published in the June 1996 edition of *The Standards Forum* and is now available on Internet.

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